very cautiously over the field of view, but the instant the solution of sulphate of strychnia approached it, it was thrown into terrible convulsions, and soon became apparently dead and still, having then, to his eyes, all the appearance of a pus globule, and having a kind of reticular structure. He distinguished the leucocyte from an ordinary pus globule by the appearance, but chiefly by the action of the above reagents upon it; he did not pretend to tell the difference exactly between a white corpuscle and a pus globule, but could tell by the reagents. He had never seen any sort of reticular structure in the red corpuscle. The color sometimes referred to in the *Deckpfarbe* was produced in the red corpuscle by the above reagents. [?]

AN IMPROVED LAMP FOR USE WITH THE MICROSCOPE (Page 14).

Mr. George C. Taylor exhibited an improved form of microscope lamp. He first described and showed the Hitchcock lamp in its ordinary form. His improvement consists: First—In a separation of the upper and lower parts of the lamp so that the flame was made lower. In the ordinary Hitchcock lamp the flame is too high. The clock-work is placed on one side instead of in the base. Second—In a change in the means of adjustment of the flame. The machinery can vary its speed but slightly, and he found this insufficient. Also the raising or lowering the wick was not satisfactory. He had, therefore, arranged the lamp so that all openings for admission of air were closed, except one, and over that he placed a kind of diaphragm, which can be opened or closed at will. With this the intensity of the light can be regulated with ease and absolute exactness without regard to the wick, and without change in the rate of the clock-work.

President Blackham said, He could testify to the value of the Hitchcock lamp, and was sure this form would be still more useful to the microscopist. The Hitchcock Lamp Co. had also made improvements in their clock-work of late.

"MICRO-PHOTOGRAPHY WITH DRY-PLATE," ETC., by W. H. Walmsley (Page 179).

Prof. A. McCalla asked if Mr. Walmsley had ever used either of the processes for developing a lantern-positive direct from the

negative; *i. e.*, transforming the negative into a transparent positive, especially the iodine method. Mr. Walmsley said he had developed positives out of negatives, but had not used the iodine method, and more usually preferred to print the positive from the negative, so as to use the negative for printing other copies.

Prof. McCalla said that, While such a beautiful apparatus as that exhibited by Mr. Walmsley was a very nice thing to have, one need not be deterred from attempting to photograph their microscopic studies for lack of it, for a very cheap and almost entirely home-made outfit would answer every practical purpose. A cigar-box with a cone of tin or paste-board, makes a good camera when blackened inside, and can be mounted with the microscope on a plain pine board by the aid of a few small slats, or, with a little more trouble in the adjustment each time, can be used on a common table. Ten cents' worth of red paper, or fifty cents' worth of red glass will make a capital developing-room out of a pantry, or improvised dark closet. In fact the art is simple, and, with the microscope already in possession, the apparatus required is of a simpler form than in out-door or portrait photography, for the light is more completely under control and less variable.

Mr. E. S. Nott described a method of ascertaining how much the actinic and visual foci differed. He focused, as correctly as possible by the eye, on a micro-photograph, such as the Lord's Prayer, and photographed it, producing, of course, a blurred image; then focusing on it again, and withdrawing the objective till the visual focus was as much blurred as the photograph just taken had been, he photographed it once more, and thus secured a correct and clear definition.

Mr. Walmsley said, The difference between the foci could be easily ascertained by one or two experiments, and the proper amount to turn the fine adjustment noted down for each objective. The time of exposure required, would vary with the subject, thick and yellow or red preparations requiring longer time.

Dr. A. Y. Moore asked, If allowing the eye-piece to remain in the tube would not do away with nearly all the necessity of changing the focus.

Dr. Blackham said, He had never found it necessary to make any difference of adjustment to secure actinic focus. He always used the eye-piece, and used an ordinary kerosene lamp as the source of light.

Mr. E. S. Nott said, There was a difference between the visual and actinic foci, even when the eye-piece is used, but it is less in amount.

"PREPARATION AND MOUNTING OF BRAIN SECTIONS."

Dr. Theodore Deecke described his method of preparing and examining large sections of the brain. He first exhibited some of his large preparations, showing sections through the entire brain, the slides being 6x10 inches, and stated the reason why such large sections were desirable in the study of such organs as the brain, viz. that their various parts may be seen and studied in their true, original relations, and any lesions or morbid anatomical structure ascertained and noted in its proper plane.

The microtomes are heavy brass cylinders resembling in form those employed by microscopists for years. The largest one is nine inches in diameter and fourteen inches high, and closed at the bottom. A closely-fitting piston three inches thick, is moved from the bottom upwards by a strong but fine micrometer screw, one inch in diameter, with thirty threads to the inch. The head-piece of the screw, six inches in diameter, is divided into forty degrees, so that the piston can be raised with great ease the twelve-hundredth, the sixth-hundredth, the four-hundredth, the three-hundredth part of an inch, etc., thus graduating accurately the thickness of the section. The upper part of the cylinder, upon which the knife has to rest, is mathematically even, and is ground off and polished on the same plate as the lower surface of the knife, so that the two correspond to each other with the highest degree of accuracy. The knives are of the following construction; for the largest is used a blade with upright handles, the cutting edge of which is sixteen inches long, one and one-half inches broad, and one-quarter of an inch thick at the back, to which a steel rod is attached by screws, which projects one-sixteenth of an inch downwards, so that the knife, when placed upon